24th Annual

Student Research Forum

April 10 & 17, 2015

Centenary

24th Annual Student Research Forum

April 10 & 17, 2015

Posters
Mickle Hall
(2nd floor)
2:00 – 4:40 P.M.
April 10, 2014

Natural Sciences
Carlile Auditorium
(Mickle Hall first floor)
2:00 – 3:10 P.M.
April 17, 2014

Social Sciences
Carlile Auditorium
(Mickle Hall first floor)
3:20– 4:00 P.M.
April 17, 2014

Humanities
Carlile Auditorium
(Mickle Hall first floor)
4:10 – 4:50 P.M.
April 17, 2014

24th Annual Student Research Forum

SPONSORED BY

DOUGLAS F. AND MARION S. ATTAWAY FOUNDATION

JUDGES

DR. DAVID BIELER ..... *Associate Professor of Geology*
DR. CHRIS CIOCCHETTI ..... *Associate Professor of Philosophy*
DR. SPENCER DEW ..... *Assistant Professor of Religious Studies*
DR. DAVID HOAAS ..... *Professor of Economics*
DR. JOSHUA LAWRENCE ..... *Associate Professor of Chemistry*
DR. BETH LEUCK ..... *Professor of Biology*
DR. REBECCA MURPHY ..... *Assistant Professor of Biology*
DR. DAVID OTTO ..... *Crawford Chair of Liberal Arts*
DR. JARRET RICHARDSON ..... *Visiting Professor in Neuroscience*
DR. MICHELLE WOLKOMIR ..... *Professor of Sociology*

DR. ELIZABETH DISBROW ..... *LSUHSC Associate Professor, Neurosurgery*
DR. JEFFERY EVANS ..... *ULM Associate Professor*
DR. LUCY ROBINSON ..... *LSUHSC Associate Professor, Biochemistry & Molecular Biology*
SARAH SMITH ..... *Attorney at Ayres, Warren, Shelton & Williams*

DIRECTOR

DR. SCOTT CHIRHART
24th Annual Student Research Forum

POSTER Presentations/Judging

* Presentation and judging will take place on Friday, April 10th between 2:00 p.m.-4:40 p.m. on the second floor of Mickle Hall. In preparation of the judging, presenters should have their posters in place and ready at their assigned locations no later than **Thursday** evening.

2:00 P.M Provost Jenifer Ward..... Introduction/Welcome

2:15 P.M. Emily Ware.....Geology
2:30 P.M. Emilie Harmeyer.....Geology
2:45 P.M. Dolores Ross..... Chemistry
3:00 P.M. Morgan Navalance.....Biology

Break: 3:15 P.M. – 3:30 P.M.

3:30 P.M. Zachary Stielper .....Biology
3:45 P.M. Raquel Candal and Sarah Irons.....Biology
4:00 P.M. Celia Sobelman.....Biology
4:15 P.M. Alexandra L. Ross.....Biology
4:30 P.M. Angie Adame, Kenneth Cobb, and Susan Zibari.....Sociology

ORAL Presentations/Judging

* Presentation and judging will take place on Friday, April 17th between 2:00 p.m.-4:50 p.m. in Carlile Auditorium which is located in Mickle 114.

Natural Sciences

in Carlile Auditorium

2:00 P.M Provost Jenifer Ward..... Introduction/Welcome

2:10 P.M. Lauren Moore.....Biology
2:20 P.M. Elias Capello .....Biology
2:30 P.M. Arash Ataei.....Biology
2:40 P.M. Christopher Cates.....Biology
2:50 P.M. Tierra Range ..... Biochemistry
3:00 P.M. Rebecca Thompson..... Chemistry

Seriously why are these natsci

* Natural Sciences Oral Presentations end about 3:10 P.M.*

Break: 3:10 P.M. – 3:20 P.M.

Social Sciences

in Carlile Auditorium

3:20 P.M.	Ryan Stevens	.....	Economics
3:30 P.M.	Donovan Williams	.....	Economics
3:40 P.M.	Ninjia Miles	.....	Sociology
3:50 P.M.	Lauren Marlar	2nd place	Psychology

* Social Sciences Oral Presentations end about 4:00 P.M.*

Break: 4:00 P.M. – 4:10 P.M

Humanities

in Carlile Auditorium

4:10 P.M.	Kellan Klaus	.....	Religious Studies
4:20 P.M.	Alissa Brown	.....	Religious Studies
4:30 P.M.	Kayla King	.....	Religious Studies
4:40 P.M.	Daryn Beaugh	.....	History

Humanities Oral Presentations end about 4:50 P.M.

POSTER PRESENTATIONS

Project Hotspot: Preliminary Petrography and Geochemical Results on Basalts of the Kimberly Drill Hole, Snake River Plain, Idaho

Emily Ware

Research Advisor: Dr. Scott Vetter

Department of Geology
Centenary College of Louisiana

Project HOTSPOT is an international collaborative effort to understand the volcanic history of the Snake River Plain (SRP). The SRP overlies a thermal anomaly, the Yellowstone-Snake River hotspot, thought to represent a deep-seated mantle plume under North America.

We report initial petrography and geochemical results for Kimberly site. Kimberly drilling reached a total depth of 1958m and is dominated by rhyolite and welded tuffs, with basalt/sediment intercalations at 241m to 424m depth.

Basalts contain equigranular textures of olivines, plagioclases, clinopyroxenes, and oxides. EMP/SEM phase compositions indicate the olivines' Fo range of 74.7 to 47.4 with some zonation present. Plagioclase An ranges from 76.6 to 53.2 with little to no zonation. Clinopyroxene (Wo En Fs) range from Wo9.6 En56.4 Fs34.0 to Wo45.2 En35.6 Fs19.1 and are groundmass phases.

Whole rock compositions shows the upper basalt flow has a limited Mg# range of 49.4 – 56.9, wt% SiO2 46.2-48.0, wt% TiO2 2.1-2.8, and wt% P2O5 0.06-0.45. The lower basalt flow has a wider Mg# range of 47.7 -62.6, wt% SiO2 46.6-49.5, wt% TiO2 1.55-3.08, and wt% P2O5 0.03-0.25. Major elements suggest that the lower basalt flow has undergone crystal fractionation while the upper basalt flow has undergone little if any crystal fractionation.

Developing An Experimental Framework for Analysis of Vegetative Roofing Systems at Centenary College

Emilie Harmeyer

Research Advisor: Dr. David Bieler

Department of Geology
Centenary College of Louisiana

Vegetative roofing systems, commonly known as green roofs, can be understood as hydrologic basins with corresponding water budgets.

Like any budget, the components of a green roof water budget include inputs, in the form of precipitation, and outputs, in the form of evapotranspiration and runoff. The various layers that comprise a typical green roof – especially the vegetation layer, the substrate, and the drainage layer – each play a part in controlling the effects of these inputs and outputs on the green roof's budget. In urban environments, where impervious surfaces have altered the natural hydrology, green roofs are commonly employed to both attenuate and delay stormwater runoff. This study attempts to synthesize previous research on the effects of percentage vegetation cover, substrate depth and composition, and precipitation duration, intensity, and frequency, among other variables to create a better understanding of the hydrologic budget of green roofs. This information was then applied to create a framework for evaluating experimental green roofs on Centenary's campus in the future.

Examination of Genes Controlling Flowering Time During Leaf Development in *Sorghum biocolor*

Morgan Navalance

Research Advisors: Drs. Daryl T. Morishige[2], John E. Mullet[2], Rebecca L. Murphy[1]

[1]Centenary College of Louisiana

[2]Department of Biochemistry and Biophysics, Texas A&M University, College Station, TX

As plants prepare to reproduce, they undergo distinct molecular changes that allow them to transition from vegetative to reproductive growth. This transition is the result of flipping a specific molecular switch that typically integrates various positive and negative regulatory pathways that couple internal molecular cues, like circadian rhythms, with external stimuli, such as photoperiod. These positive and negative regulators are expressed to vary degrees as the plants age and are exposed to certain environmental conditions.

To further understand the activities of these central floral regulators in the cereal crop *Sorghum bicolor*, gene expression was examined under non-inductive long day and inductive short day conditions in leaves at different developmental /me points by qRT-PCR. These genes include those that participate in the grass-specific Ehd1-Ehd2-Ghd7 pathway, as well as those in the canonical GI-CO-FT pathway.

Drugs that Protect Cells from Lipid Stress in the ER- Implications for Parkinson's Disease

Alexandra L. Ross

Research Advisors: Shaoxiao Wang,
Stephan N. Witt

Department of Biochemistry and Molecular Biology
LSUHSC Shreveport, Louisiana

A hallmark of Parkinson's disease is the formation of Lewy bodies in the affected neurons. The main component of LBs is the protein alpha-synuclein (α-syn). Studies have shown that the level of phosphatidylethanolamine (PE), which is a major phospholipid in neurons, declines with age in rodents. We sought to determine how low PE affects the solubility of α-syn, which is known to associate with phospholipids. We have shown that low levels of phosphatidylethanolamine (PE) in yeast, caused by deleting the gene *PSD1*, cause stress in the endoplasmic reticulum and disrupts protein trafficking of α-syn. Here we used two drugs, sulfaphenazole (Sul) and meclofenoxate HCl (Meclo), identified by a drug screen, to determine if they rescue both the severe growth defect and ER stress of the double knockout mutant *psd1*Δ *psd2*Δ. Ethanolamine (ETA), which has been shown to rescue these mutants via conversion to PE by the Kennedy pathway, served as the positive control. DMSO served as the negative control. Choline, which is converted to another membrane lipid, phosphatidylcholine, and DMAE, a component of meclofenoxate HCl were also tested. Growth data showed that Sul, Meclo, ETA, choline, and DMAE all rescued the double mutant's growth compared to control cells. Meclo and its component DMAE provided the greatest rescue effect. β-galactosidase assays, used to measure ER stress, showed that Meclo, choline, ETA, and DMAE also significantly reduced ER stress in the *psd1*Δ mutant compared to DMSO. None of the drugs reduced ER stress of *psd1*Δ to WT levels. These results show that Meclo improves growth and reduces ER stress of yeast with low levels of PE. Meclo will be tested in PD transgenic mice to see whether it improves motor functions, which are typically degraded in PD.

Phylogenetic analysis of the upstream region of the arcanolysin gene from smooth and rough biotypes of *Arcanobacterium haemolyticum*

Dolores Ross

Research Advisor: Dr. Joshua Lawerence

Department of Chemistry
Centenary College of Louisiana

Arcanobacterium haemolyticum is a gram-positive, β-hemolytic, pleomorphic rod that causes pharyngitis, wound infections, and rare invasive diseases. There are two major colony biotypes of *A. haemolyticum*: smooth isolates associated with wound infections that have strong β-hemolysis, and rough isolates associated with pharyngitis that have weak β-hemolysis. The primary hemolysin is thought to be Arcanolysin (*aln*/ALN), which belongs to the cholesterol-dependent cytolysin (CDC) family. The PCR product of the *aln* open-reading frame is 2.0 kb in all smooth isolates. However, half of the rough isolates contain an insertion sequence (IS) element in the *aln* coding region, which results in a 3.2 kb PCR product. Additional PCR and sequence analysis of the upstream region of *aln* revealed nucleotide polymorphisms. None of the nine isolates from Germany/Denmark possess the IS element and all are of the smooth biotype. While the wild type strain had strong hemolysis, the *aln* mutant was markedly reduced. However, in some environmental conditions, the *aln* mutant still retained some hemolysis, suggesting presence of a second unknown hemolysin. Taken together, the data suggest *aln* can be used to distinguish smooth and rough biotypes of *A. haemolyticum* and that a second hemolysin exists.

Is PAR binding necessary for oxidative stress-induced Iduna upregulation in ARPE-19 cells?

Zachary Stielper

Research Advisors: Pranab K. Mukherjee, Nicolas G. Bazan

Neuroscience Center for Excellence
LSUHSC New Orleans, Louisiana

In attempt to combat neurodegenerative diseases, researchers have sought to identify endogenous molecules that protect cells against harmful stimuli. One such molecule is Iduna, a poly(ADP-ribose) (PAR)-dependent E3 ligase. Iduna is neuroprotective; it has been shown to protect against glutamate excitotoxicity, ischemia, γ-irradiation, and parthanatos, and is involved in the recruitment of DNA damage response elements. Previous studies have demonstrated that Iduna's binding to PAR is necessary for Iduna's protection to be elicited. This

project focuses on studying Iduna's expression when treated with other neuroprotective molecules in the context of oxidative stress and whether PAR binding is necessary for docosahexaenoic acid(DHA)-mediated expression regulation. ARPE-19 cells were transfected with a wild-type Iduna expression vector or a construct containing a mutant incapable of binding to PAR. Following transfection the cells were challenged with DHA and neurotrophins PEDF and NGF. Expression levels were quantified through western blot analysis. Our results show a marked increase in the level of wild-type Iduna when treated with DHA, PEDF, NGF, and combinations of DHA and PEDF and NGF, with little variation in the expression of the mutated Iduna form. Taken together, the data suggests that a functional PAR-binding site is necessary for DHA-mediated upregulation of Iduna. Furthermore, NGF's upregulation of Iduna expression underscores its importance in cell signaling.

Music Therapy and Its Effect on Quality of Life of Alzheimer's Patients

Raquel Candal and Sarah Irons

Research Advisor: Dr. Scott Chirhart

Department of Biology
Centenary College of Louisiana

Alzheimer's disease has symptoms ranging from memory loss to behavioral changes, which have proven to have detrimental effects on quality of life. Some behavioral declines have been shown to improve after participation in music therapy. Current understanding concerning which type of music therapy is most effective is incomplete. Given this, we hypothesized that patients participating in music therapy sessions designed around a customized playlist would show greater improvements in behavioral symptoms than participants with a random playlist or a no-music control. The following study was designed to investigate whether random music can improve quality of life or if familiar music yields significantly better results. The participants (who scored 19 or better on a pre Mini Mental State Exam) were randomly sorted into a customized playlist group, randomized playlist group, and a no-music control group. The effects of the therapy were measured using a pre and post MMSE and Neuropsychiatric Inventory (NPI). Preliminary analysis indicates that a customized playlist significantly reduced agitation compared to the random playlist and the no-music control. If consistent, this finding could be used to develop more effective music therapy programs for people living with Alzheimer's disease.

Dog ownership increases the richness of the cutaneous microbiome.

Celia Sobelman

Research Advisor: Dr. Cristina Caldari

Department of Biology
Centenary College of Louisiana

It has been shown that individuals that co-habitate harbor similar cutaneous microbial communities. The purpose of this study was to determine if humans that co-habitate with dogs have different cutaneous microbial richness compared to humans that are rarely exposed to dogs. Microbial richness was defined as the number of morphologically distinct colonies in a sample. Humans that co-habitate with dogs (dog owners) were defined as humans living with ≥ 1 indoor dogs. Humans having rare contact with dogs (non-dog owners) were defined as humans that were in contact with dogs ≤ once a week. Cutaneous microbial samples were obtained by using a sterile cotton swab to swab the top of the hands, forearms and foreheads of humans and the dorsalthoracic area, nose area, and chest of dogs. The cotton swabs were stored in sterile PBS for 24 h after which time 100 ml of the PBS was plated onto a tryptic soy agar plate with 5% sheep blood. After a 48-h incubation period at 37°C, distinct microbial colonies were counted. Distinctness of the colonies was determined based on colony morphology, cell morphology and Gram staining. Microbial richness varied among dogs, dog-owners, and non-dog owners (Levene's test, p-value=0.007), with dogs having the most variation and non-dog owners having the least variation. The average cultured cutaneous microbial richness was significantly higher in dogs and dog owners (6.73 ± 4.23 and 5.60 ± 3.20 microbial species, respectively) compared to non-dog owners (2.73 ± 0.96 microbial species). There was no significant difference in the cutaneous microbial richness of dogs and dog-owners. These results suggest that frequent contact with dogs leads to an increase in cutaneous microbial richness compared to infrequent contact with dogs. The implications of these findings on health and disease warrant further investigation.

Friends and Likes: Facebook Friendships and Post Popularity

Angie Adame, Kenneth Cobb, Susan Zibari

Research Advisor: Dr. Demerath

Department of Sociology
Centenary College of Louisiana

This paper describes a pilot study that examines different dimensions of Facebook relationships and post-interactions. One part of the study looks at various dimensions of perceived similarity of "friends," as a predictor of the number of mutual friends. Another part of the study examines how the average number of post's likes, comments, and its like-to-comment ratio varies with the kind of post it is. A third part of the study looks at how "selfies" and group photos vary by characteristics of posters, including the person's sex, age, and total number of friends. The results are discussed in the context of established research on how social networks develop and are maintained.

NATURAL SCIENCE ORAL PRESENTATIONS

Stress Eating in College Students

Lauren Moore

Research Advisor: Dr. Beth Leuck

Department of Biology
Centenary College of Louisiana

Research has shown that stress along with depression and anxiety rates are directly linked with eating disorders in college students and that together these factors can influence a student's academic performance. One of the best ways to observe this link among stress, eating patterns, and academic performance in college students is to compare the amount of junk food eaten during periods of high and low academic stress. It was predicted that students would be more likely to indulge in junk food, such as candy and chips, during times of high academic stress. To test this, snacks were made available to first year biology students during a 10-minute break period in their studio-format biology classes for both fall and spring terms. The number of snacks eaten during the period was recorded after each class ended. I also noted whether or not there was a test during the period or in the one following it. I found that not only did consumption of junk food increase with the

approach of an exam, but the students were also more likely to choose calorie-rich candy bars over chips.

Sex Sells: Deconstruction of the Male Sex Bias in Biomedical Research

Elias Capello

Research Advisors: Dr. Greg Butcher

Department of Neuroscience
Thiel College

Neuroanatomical sex differences exist in both non-human animals and humans, but do we research females at the same rate as males? A meta-analysis was conducted in which a Pubmed search was used to investigate a sex bias in Parkinson's disease research, and whether or not the gender identity of the first and last author is correlated to the sex of the non-human animals investigated. Sources of funding were also investigated as a possible correlate. It was hypothesized that male humans and non-human animals would be more likely to be used for research, and that the gender identity of the first and last authors would correlate with the sex of the non-human animal investigated. It was also hypothesized that sources of funding would correlate with the sex of the non-human animal studied. Male first authors were significantly more likely to conduct studies on male non-human animals. Female first authors were not more likely to conduct studies on female non-human animals than male non-human animals. Studies funded by public entities were significantly more likely to include male non-human subjects. These findings suggest that the first author's gender identity and source of funding does have an influence on subject sex.

Forced Mechanical Expansion of the Rib Cage and its Effects on Respiratory Measurements

Arash Ataei

Research Advisor: Dr. Beth Leuck

Department of Biology
Centenary College of Louisiana

Swimming is an endurance sport that requires sufficient lung capacity to take in oxygen to power muscle contraction. As in many sports, there are multiple anecdotal methods of increasing athletic performance. One of these that members of some swim teams perform is expansion of the ribcage by pulling it outward to increase cross-sectional area of the chest cavity. Ten male swimmers on the Centenary College team and 10 males who do not attend formal practice sessions of any sport manually pulled outward on their ribcages for 90 seconds every day for

33 days. Respiratory values were measured at the beginning and end of the experiment to monitor long-term effects of the activity and three times throughout the experiment to monitor short-term effects. The data indicate a slight increase in vital capacity (total functional lung volume) and a more than two-fold increase in inspiratory reserve volume (maximum amount of air an individual is capable of inhaling).

Identification of Novel Genes Controlling Flowering Time in Sorghum bicolor

Christopher Cates

Research Advisors: Heath A. Richey[2], Ashley J.Mattison[2], Dr. Daryl T. Morishige[2], Dr. John E. Mullet[2], Dr. Rebecca L. Murphy[1]

[1]Centenary College of Louisiana

[2]Department of Biochemistry and Biophysics, Texas A&M University, College Station, TX

The transition from vegetative to reproductive stages during the life cycle of a plant involves a complex regulatory cascade controlled by an intricate interplay between environmental stimuli, such as photoperiod, and endogenous factors, such as circadian rhythm. Flowering time in sorghum is an important trait, as early flowering plants are used extensively for grain sorghum, and taller, later flowering varieties are being sought after for use as a biofuel feedstock. In sorghum, six historically important loci regulate the transition to reproductive growth in response to photoperiod. These loci have been referred to as Maturity locus 1 – 6, (Ma_1-Ma_6). Of these loci, Ma_1 [(1)], Ma_3 [(2)], and Ma_6[(3)] have been identified. The identification of the remaining three loci has remained a priority to sorghum breeders. With advances in sequencing technology coupled with the phenotypic variation observed in natural sorghum germplasm the identification of multiple, smaller effect QTL has been made possible. To further elucidate these novel genes affecting flowering time, germplasm screens have been conducted to analyze the sequences of candidate genes underlying the QTL under short day inductive photoperiods.

Development in donor-acceptor type block copolymer for use in bulk-heterojunction photovoltaics

Tierra Range

Research Advisors: Drs. Choong Ping Sen, Suresh Valiyaveetil

Department of Chemistry
University of Singapore

Conjugate polymers are used in photovoltaic cells for energy conversion. Polyfluorene, polythiophene, and polybenzotriazole

syntheses were attempted with the goal of creating conjugate polymers. Electron rich polythiophene was synthesized as the donor polymer of the block copolymer. Electron deficient polybenzotriazole was synthesized separately as the acceptor polymer. Successful synthesis of each of these polymers was confirmed using ^{1}H and ^{13}C NMR, mass spectroscopy, GPC, and UV/Vis analyses. UV/Vis spectra of these polymers showed characteristic red shift in wavelength maxima from that of their monomers along with higher extinction coefficient. Attachment of the donor and acceptor polymers to form diblock copolymer was attempted, but did not explore in detail owing to lack of time.

Investigation of the mechanism of arene perfluoroalkylation by iron perfluoroalkyl reagents

Rebecca Thompson

Research Advisor: Dr. Joshua Lawerence

Department of Chemistry
Centenary College of Louisiana

A number of pharmaceutical drugs trifluoromethylarenes, including the anti-depressant fluoxetine and type 2 diabetes medication sitagliptin phosphate. Direct conversion of aryl C-H bonds to aryl perfluoroalkyl groups would afford a wider variety of drug candidates more quickly than the methods currently used. An iron perfluoroalkyl reagent with a Ag+ initiator has been shown to convert aryl C-H bonds to perfluoroalkylarenes. The mechanism by which the reaction proceeds is unknown, however. A kinetic isotope effect study shows that C-H bond cleavage is not the rate-limiting step, and a Hammett plot suggests that electrophilic or radical intermediates may be involved. p-bound Fe(arene) compounds were studied as possible intermediates in this reaction.

SOCIAL SCIENCE ORAL PRESENTATIONS

NFL Franchises and Metropolitan Areas: A Study of the Effects Due to the Existence of a Franchise during the 2013 season.

Ryan Stevens

Research Advisor: Dr. David Hoaas

Department of Economics
Centenary College of Louisiana

This paper examines the economic impact of an NFL franchise on a metropolitan area. In 2013, the NFL generated in excess of nine billion dollars in revenue. Also, 2013 marked the 29th consecutive year that the NFL was voted the United States' most popular sport. Given the popularity of such a large money making organization, it is important to consider if NFL franchises contribute positively to the individuals in the metropolitan area. The data in this paper are derived from 2013 statistics of 58 metropolitan areas, and is made up of 10 independent variables with the dependent variable being per capita income. The independent variables are different economic measures, such as unemployment rate and dummy variables that measures the effect of the franchise, such as existence of the franchise. Regression analysis is used to evaluate the correlation between NFL franchises and per capita income. After the results are interpreted, there is no correlation between NFL franchises and metropolitan areas in regard to per capita income. One possible explanation for this is that NFL franchises do not increase income in an area; the income is just redistributed between different industries.

Is High School Ranking a Good Predictor of NBA Production

Donovan Williams

Research Advisor: Dr. Betsy Rankin

Department of Economics
Centenary College of Louisiana

High school rankings are done recruiting websites such as ESPN, Rivals, Max Preps, etc. These rankings are made to numerically order the best players across the country by their respective sports. The information provided by high school rankings is readily available to everyone. It is within reason to expect to see the top players in the rankings compete at a high level in college and eventually compete professionally, but to what extend does that expectation hold true? If a player is ranked at the top of his class is that enough reason to believe

that he be a top player in college and in this case the NBA? I provide insight to the question, "Is high school ranking a good predictor of NBA Production", by using ordinary least squares to run a regression using John Hollinger's Player Efficiency Rating. The results show that ranking is not a good predictor of NBA production, however, the results introduced the claim that a player can expected diminishing returns in product based on experience in his 11th season in the NBA.

The African American Experience at Private Liberal Arts Institutions

Ninjia Miles

Research Advisor: Dr. Michelle Wolkomir

Department of Sociology
Centenary College of Louisiana

Fred A. Bonner II's article "Focusing on Achievement: African American Student Persistence in the Academy" (2010) highlights what is necessary to ensure success within higher education for African American students - adequate academic and social integration, a warm institutional climate, opportunities to develop their identity, and mentors. Private liberal arts colleges, given that their faculty and student bodies are often overwhelmingly white and they may lack key resources, may struggle to create the vibrant intellectual and social atmosphere necessary for the success of African American students. To better understand African American students› needs and challenges, this research examines how an African American students experience college at a predominantly white liberal arts institution. To collect data, I conducted 11 loosely structured, in-depth interviews with students at Centenary who identify as Black/ African American, focusing on their intellectual and social experiences in college. These findings analyze how these students experienced being a racial minority on a predominately white college campus, highlighting college experiences and relationships that influenced their success and examining the challenges these students faced.

Attitudes, Perceptions, and Priorities of Non-Profit Administration and Clientele

Lauren Marlar

Research Advisor: Dr. Amy Hammond

Department of Psychology
Centenary College of Louisiana

This study examines the effects of racial- and class-based "mismatching" in social service non-profits, where low-income minority community members, the targeted clientele base, are not

represented or participating in decision-making for the organization. This study compares the concerns and perceptions of the clientele of Common Ground Community, Inc., a local community center, to the concerns and perceptions of the organization's board of directors and executive administrators. All administrators were invited to participate, while clients were recruited during Common Ground Community's weekly community meal. The administration and clientele participated in separate focus groups, and clients were further divided by age and gender. They were then asked about the needs of the community and the organization's programming.

This research identifies points of overlap and points of tension between worldviews, and provides insight into how perspective affects prioritization and conceptualization of issues addressed by social service non-profits.

HUMANITIES ORAL PRESENTATIONS

Religion and Politics in Cyprus: A Polycultural Approach to Ethnic Conflicts

Kellan Klaus

Research Advisor: Dr. David Otto

Department of Religious Studies
Centenary College of Louisiana

To show how religion informs the identities of the conflicting communities and, in turn, the nature of the Cyprus conflict this paper employs Robin Kelley's and Vijay Prashad's polycultural approach to culture and ethnic lineage by advancing a critical historical analysis of the Cyprus conflict emphasizing how fluctuating societal, religious, and political aspects of the island fused religion to national, economic, and governmental affairs, and vice versa, which informed the internal, and external, formation and pressure to create distinct, conflicting ethnic identities.

Through a polycultural analysis of the history of Cyprus this paper will reveal how the involvement of religion and religious leaders in politics, governance and education resulted from, reinforced, and contributed to the compounding and contingent nature of the interaction of different cultures. The paper will then show how Cyprus's independence from British colonialism informed the creation of conflicting ethnic identities.

The influence of religion in identity conflicts reaches much farther than is often noted. Rather than indirectly referencing or simply ignoring the influence of religion on identity formation in conflict situations, the subject must be exhausted by explicit extensive analysis.

Hopes of a Better Afterlife: Similarities in Funerary Art Between Early Christianity and Mystery Cults

Alissa Brown

Research Advisor: Dr. David Otto

Department of Religious Studies
Centenary College of Louisiana

Most of the known Early Christian art (1-300 C.E.) appears on the walls of Ancient Roman catacombs or on sarcophagi. In the early stages of Christianity, Jesus movements paralleled the flourishing Greco-Roman mystery cults that drew on votive religions—transactional relationships between deities and humans to help cope with the inescapable future of mortals. The funerary artistic traditions of mystery cults reinforced these ideas. Lacking their own artistic tradition, the Early Christians used existing religious artistic traditions centering on depictions of Greco-Roman deities and the afterlife. Early Christian writings such as Clement of Rome's first letter to the Corinthians, the first and second Apologies of Justin Martyr, and the Apocalypse of Peter give us the perspective of the religion's first and second century thinkers while containing themes that appear on Rome's subterranean walls. Greco-Roman symbols became appropriated by the Christian faith, resulting in themes that reflected the Early Christian ideas of death and the afterlife through the lens of Greco-Roman aesthetics. Focusing on artistic and written evidence found in the Mediterranean region, this paper will use primary source material and images appropriated by Christians that had significant meaning in the Greco-Roman world to expand the limited research on this topic.

The Fifteenth Dalai Lama Incarnation: The Possible End of a Sacred Legacy

Kayla King

Research Advisor: Dr. David Otto

Department of Religious Studies
Centenary College of Louisiana

This research explores probable results of the Fourteenth Dalai Lama reincarnation and how the result will affect Tibetan Buddhism. This project will review the historical significance of previous Dalai Lama incarnations, the socio-political effect of the Dalai Lama legacy and the

religious significance of the presence of His Holiness. Previous to the Fourteenth Dalai Lama, His Holiness has served as the spiritual and political leader of Tibetan Buddhism. The current Dalai Lama stepped down from his political post, but continues to lead Tibet spiritually while exiled in India due to the Chinese invasion. The current state of Tibet leaves many questioning the incarnation of the Fifteenth Dalai Lama. The fourteenth recently made a statement proclaiming the possibility that he is in fact the last of the Dalai Lama sacred legacy. The Dalai Lama, now revered and respected by most countries, recently rose to the popularized figure he is now. Perhaps there will be no fifteenth Dalai Lama or China and Tibet will both recognize a Dalai Lama resulting in two Tibetan spiritual leaders. Although many see Tibet as a defenseless state against China, the current Dalai Lama believes the fate of his reincarnation is left in the hands of the Tibetan people.

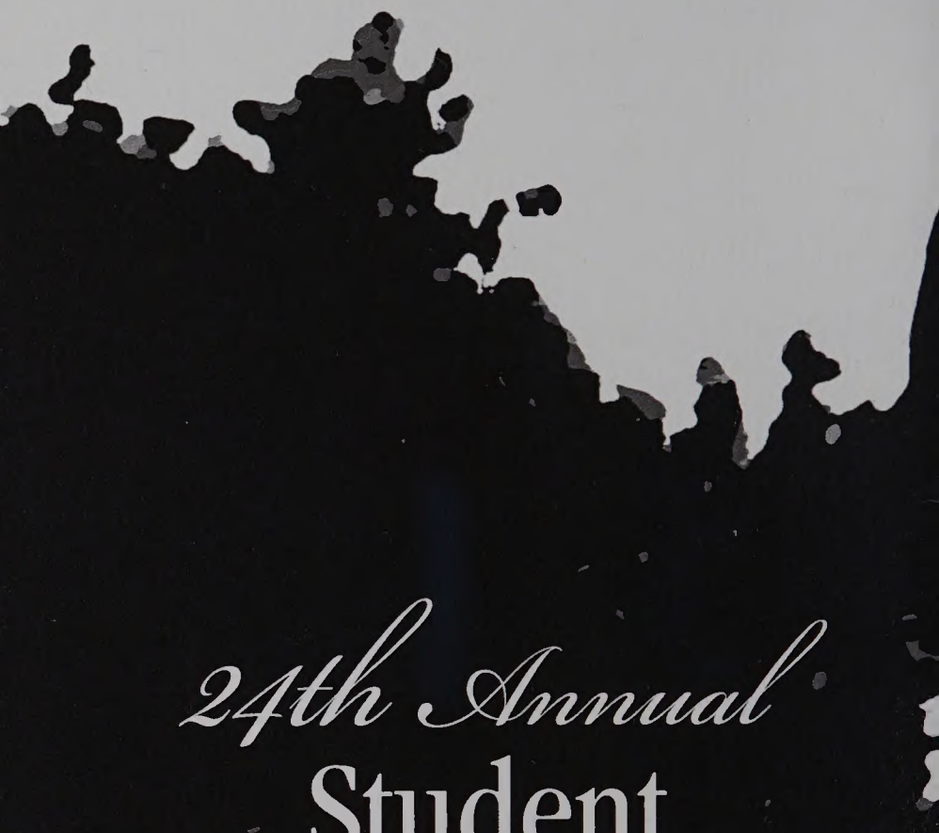
Don Juan Filhiol and the Transformation of Northeast Louisiana during the Spanish Colonial Period

Daryn Beaugh

Research Advisor: Dr. Sam Sheppard

Department of History and Poltical Science
Centenary College of Louisiana

Frenchman Don Juan Filhiol accepted an appointment to a post as commandant in the wilderness of the Ouachita territory. Not a Spaniard, he still strove to fulfill all tasks given to him by the governor of Louisiana, Esteban Miro. The Spanish had acquired Louisiana in 1763, but only asserted their authority in Northeast Louisiana in the 1780's. When they did the Governor sent detailed instructions. Don Juan found the area sparsely settled and the inhabitants unruly and uncivilized. His tenure as Commandant, from 1783 to 1800, bettered the post by building a village, teaching cultivation techniques, diversifying the area's economy, and initiating clearing of the river for easy access by ferry. His ultimate accomplishment was the building of Fort Miro as a means to deter the Native Americans from attacking settlers. It became a stopping point and trade center along the Ouachita River, and the fort he founded eventually became a major settlement, the modern city of Monroe, Louisiana. Filhiol's work bettered Northeast Louisiana. His experiences show the early difficulties of developing a region that would become an important part of modern Louisiana, offering a rare glimpse of Northeast Louisiana during the Spanish colonial period.



24th Annual Student Research Forum

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